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PTO/SB/21 (08-03)

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<b>TRANSMITTAL FORM</b> <i>(to be used for all correspondence after initial filing)</i>		Application Number	10/781,488
		Filing Date	02/18/2004
		First Named Inventor	Hermann Tropf
		Art Unit	2171
		Examiner Name	
Total Number of Pages in This Submission	372	Attorney Docket Number	BSSPT04

ENCLOSURES (Check all that apply)			
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): 11 Non Patent Literature Documents	Remarks

#### SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	IP Strategies Thomas M. Champagne
Signature	
Date	09/22/2004

#### CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Heather L. Pagella		
Signature		Date	09/22/2004

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.	Filing Date	First Named Inventor	Atty. Docket No.	Confirmation No.
10/781,488	02/18/2004	Hermann Tropf	BSSPT04	3107

Invention	Examiner	Art Unit
Database and Method for Organizing Data Elements		2171

### Information Disclosure Statement

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

These remarks accompany an Information Disclosure Statement submitted in the above-captioned patent application.

Reference #1 is the U.S. counterpart to Reference #3, and is submitted as an English-language translation of Reference #3.

Reference #7 is a German-language non-patent literature document. Reference #6 is an English-language non-patent literature document that is summarized by Reference #7, and is submitted as an English-language translation of Reference #7.

Reference #13 is an entire textbook that is mentioned in the application, and is not submitted. This well-known textbook should be available to the examiner for consideration.

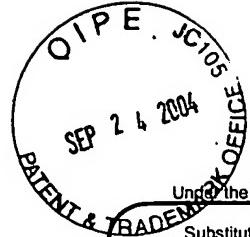
Please consider the disclosed references during examination of the instant application.

Respectfully submitted,

September 21, 2004  
Date

TMC:hlp

  
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Substitute for form 1449/PTO

## **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

**(Use as many sheets as necessary)**

Sheet 1 of 3

**Complete if Known**

Application Number	10/781,488
Filing Date	02/18/2004
First Named Inventor	Hermann Tropf
Art Unit	2171
Examiner Name	

Attorney Docket Number BSSPT04

**U. S. PATENT DOCUMENTS**

## **FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
	3	DE-196 35 429-A1	03-05-1998	BAYER, et al.		✓

<b>Examiner Signature</b>		<b>Date Considered</b>	
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**\*EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. **<sup>1</sup>** Applicant's unique citation designation number (optional). **<sup>2</sup>** See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. **<sup>3</sup>** Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). **<sup>4</sup>** For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. **<sup>5</sup>** Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. **<sup>6</sup>** Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		Application Number	10/781,488
		Filing Date	02/18/2004
		First Named Inventor	Hermann Tropf
		Art Unit	2171
		Examiner Name	
Sheet <b>2</b>	of <b>3</b>	Attorney Docket Number	BSSPT04

<b>NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	4	TROPF, et al., "Multidimensional Range Search in Dynamically Balanced Trees." <i>Angewandte Informatik</i> , Feb. 1981, pp. 71-77, Wiesbaden, Germany.	✓
	5	ORENSTEIN, "Spatial Query Processing in an Object-Oriented Database System." ACM SIGMOD Intnl. Conf. on Management of Data, 1986, pp. 326-336, Vol. 15, No. 2.	
	6	MARKL, "MISTRAL: Processing Relational Queries Using a Multidimensional Access Technique." Doctoral Thesis, Techn. Univ. Munich, 1999, Germany.	✓
	7	MARKL, et al., "Universalschlüssel: Datenbankindexe in mehreren Dimensionen." c't 1/2001, pp. 174-179, Hannover, Germany.	
	8	FALOUTSOS, "Multiattribute Hashing Using Gray Codes." ACM SIGMOD Intnl. Conf. on Management of Data, 1986, pp. 227-238, Vol. 15, No. 2.	
	9	LAWDER, et al., "Querying Multi-Dimensional Data Indexed Using the Hilbert Space-Filling Curve." ACM SIGMOD Record, 2001, pp. 19-24, Vol. 3, No. 1.	
	10	LAWDER, "Calculation of Mappings Between One and n-Dimensional Values Using the Hilbert Space-Filling Curve." Technical Report no. JL1/00, 15 August 2000, pp. 1-13,	
		www.Citeseer.com, accessed 07/08/2003.	
	11	BUTZ, "Alternative Algorithm for Hilbert's Space-Filling Curve." IEEE Transactions on Computers, April 1971, pp. 424-426, Vol. 20.	
	12	"Literature Collection of Tree Index." www.comp.nus.edu.sg/~liaojiro/tree.htm, accessed 04/06/2004.	

Examiner Signature	Date Considered
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Substitute for form 1449/PTO				<i>Complete If Known</i>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				Application Number	10/781,488
Sheet	3	of	3	Filing Date	02/18/2004
				First Named Inventor	Hermann Tropf
				Art Unit	2171
				Examiner Name	
				Attorney Docket Number	BSSPT04

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	13	SAMET, "The Design and Analysis of Spatial Data Structures." Addison-Wesley Series in Computer Science, 1 Aug. 1989,	
	14	GAEDE, et al., "Multidimensional Access Methods." ACM Computing Surveys, June 1998, pp. 170-231, Vol. 30, No. 2.	
	15	RAMSAK, et al., "Integrating the UB-Tree into a Database System Kernel." Proc. of the 26th Intnl. Conf. on Very Large Databases, 2000, pp. 263-272, Cairo, Egypt.	

Examiner Signature	Date Considered
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